

Application No. 09/819,085
Amendment "A" dated July 1, 2004
Reply to Office Action mailed April 21, 2004

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AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions, and listings, of claims in the application:

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Listing of Claims:

1. (Canceled) A method of operation for a stream class driver which functions in conjunction with a minidriver that is associated with a particular hardware adapter which generates or receives streaming data, wherein the stream class driver implements one or more system operations that are independent of any particular hardware adapter, and wherein the minidriver implements one or more operations that depend on the particular hardware adapter's design, the method comprising the stream class driver:

receiving initialization data from said minidriver that identifies one or more routines implemented by the minidriver for the particular hardware adapter,

registering said initialization data for use when the one or more routines are needed,

creating a device object for said adapter that is capable of being shared by the stream class driver and the minidriver,

providing a command to at least one of the one or more routines implemented by said minidriver to initialize said adapter,

requesting adapter stream information from at least one of the one or more routines implemented by said minidriver, wherein said adapter stream information comprises one or more hardware stream descriptors for one or more streams supported by the particular hardware adapter, and

registering said adapter stream information.

2. (Canceled) A method of operation for a stream class driver as recited in Claim 1, further comprising the stream class driver:

providing a command to said minidriver to turn off power to said adapter, and
paging out said minidriver.

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3. (Previously Presented) A method of operation for a stream class driver which functions in conjunction with a minidriver that is associated with a particular hardware adapter which generates or receives streaming data, wherein the stream class driver implements one or more system operations that are independent of any particular hardware adapter, and wherein the minidriver implements one or more operations that depend on the particular hardware adapter's design, the method comprising, after said adapter has been initialized and said minidriver has been paged out of active memory to free resources for other uses, the stream class driver:

paging said minidriver into active memory upon receipt of a data stream request in preparation for using one or more routines implemented by the minidriver for the particular hardware adapter,

providing a command to the one or more routines implemented by said minidriver to turn on power to said adapter,

providing a data stream open command and stream structure data to the one or more routines implemented by said minidriver,

providing a stream read or write command to the one or more routines implemented by said minidriver,

providing properties and control information related to said stream request to the one or more routines implemented by said minidriver,

providing a stream close command to the one or more routines implemented by said minidriver upon receipt of a data stream termination command, and

providing an uninitialization command to the one or more routines implemented by said minidriver for uninitializing said adapter.

4. (Previously Presented) A method of operation for a stream class driver as recited in Claim 3, wherein said data stream is a video data stream.

5. (Previously Presented) A method of operation for a stream class driver as recited in Claim 3, wherein said data stream is an audio data stream.

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6. (Previously Presented) A method of operation for a stream class driver as recited in Claim 3, further comprising the following performed by the stream class driver prior to providing an uninitialization command to said minidriver:

providing a second data stream open command and second stream structure data to said minidriver upon receipt of a second data stream request,

providing a second stream read or write command to said minidriver,

providing properties and control information related to said second stream request to said minidriver, wherein said first and second data streams are opened concurrently, and

providing a second stream close command to said minidriver upon receipt of a data stream termination command for said second data stream.

Claims 7-10. (Canceled)

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11. (Canceled) A computer program product comprising:

a computer usable medium having computer readable program code means embodied therein for a stream class driver which functions in conjunction with a minidriver that is associated with a particular hardware adapter which generates or receives streaming data, wherein the stream class driver implements one or more system operations that are independent of any particular hardware adapter, and wherein the minidriver implements one or more operations that depend on the particular hardware adapter's design, the computer readable program code means for the stream class driver in said computer program product comprising:

computer readable program code means for receiving initialization data from said minidriver that identifies one or more routines implemented by the minidriver for the particular hardware adapter,

computer readable program code means for registering said initialization data for use when the one or more routines are needed,

computer readable program code means for creating a device object for said adapter that is capable of being shared by the stream class driver and the minidriver,

computer readable program code means for providing a command to at least one of the one or more routines implemented by said minidriver to initialize said adapter,

computer readable program code means for requesting adapter stream information from at least one of the one or more routines implemented by said minidriver, wherein said adapter stream information comprises one or more hardware stream descriptors for one or more streams supported by the particular hardware adapter, and

computer readable program code means for registering said adapter stream information.

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12. (Canceled) A computer program product as recited in Claim 11, wherein the computer readable program code means for the stream class driver further comprise:
- computer readable program code means for providing a command to said minidriver to turn off power to said adapter, and
 - computer readable program code means for paging out said minidriver.

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13. (Previously Presented) A computer program product comprising:

a computer usable medium having computer readable program code means embodied therein for a stream class driver which functions in conjunction with a minidriver that is associated with a particular hardware adapter which generates or receives streaming data, wherein the stream class driver implements one or more system operations that are independent of any particular hardware adapter, and wherein the minidriver implements one or more operations that depend on the particular hardware adapter's design, and wherein said adapter has been initialized and said minidriver has been paged out of active memory to free resources for other uses, the computer readable program code means for the stream class driver in said computer program product comprising:

computer readable program code means for paging said minidriver into active memory upon receipt of a data stream request in preparation for using one or more routines implemented by the minidriver for the particular hardware adapter,

computer readable program code means for providing a command to the one or more routines implemented by said minidriver to turn on power to said adapter,

computer readable program code means for providing a data stream open command and stream structure data to the one or more routines implemented by said minidriver,

computer readable program code means for providing a stream read or write command to the one or more routines implemented by said minidriver,

computer readable program code means for providing properties and control information related to said stream request to the one or more routines implemented by said minidriver,

computer readable program code means for providing a stream close command to the one or more routines implemented by said minidriver upon receipt of a data stream termination command, and

computer readable program code means for providing an uninitialization command to the one or more routines implemented by said minidriver for uninitializing said adapter.

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14. (Previously Presented) A computer program product as recited in Claim 13, wherein the computer readable program code means for the stream class driver further comprises:

computer readable program code means for providing a second data stream open command and second stream structure data to said minidriver upon receipt of a second data stream request,

computer readable program code means for providing a second stream read or write command to said minidriver,

computer readable program code means for providing properties and control information related to said second stream request to said minidriver, wherein said first and second data streams are opened concurrently, and

computer readable program code means for providing a second stream close command to said minidriver upon receipt of a data stream termination command for said second data stream.

Claims 15 - 16 (Canceled)